



**Indian Council of
Social Science Research**



ICSSR, New Delhi Sponsored

A TEN-DAY NATIONAL LEVEL WORKSHOP

on

**Research Methodology and Data Analysis
by using Open-Source Software**

(15th to 24th October, 2024)

Organized by

Department of Economics

School of Social Sciences & Humanities

Central University of Tamil Nadu (CUTN)

Thiruvarur-610005



ABOUT THE UNIVERSITY:

The Central University of Tamil Nadu (CUTN), Thiruvarur, is a prominent institution with 13 Schools and 28 Departments, offering a broad range of 64 academic programs. These include 29 research, 22 specialized, 6 integrated, 2 undergraduate, and multiple PG diploma courses. CUTN collaborates with prestigious institutions like Sardar Vallabhbhai Patel International School of Textiles & Management and SACON for additional programs. Recognized for its academic excellence, CUTN holds a 99th NIRF rank, 12th in IIRF, and 55th in Nature Index. The university stands as a beacon of hope, bridging the gap between aspirations and opportunities for all sections of society. With its deep-rooted commitment to inclusivity, heritage preservation, and sustainable growth, the CUTN remains an institution worthy of admiration and emulation.

ABOUT THE DEPARTMENT:

The Department of Economics at the Central University of Tamil Nadu (CUTN), established in 2011, was one of the first in the School of Social Sciences and Humanities. The department stands out for its five-year integrated program and diverse faculty specializations including Agricultural Economics, Development Economics, Public Finance, Environmental Economics, and more. Its curriculum, based on the National Education Policy (NEP) 2020, is regularly revised by the Board of Studies to meet global and regional demands. Emphasizing both theory and application, the program promotes interdisciplinary learning and offers value-added courses for employability. The department offers Five-year integrated programme in Economics with an option to exit at the end of 3rd year with a B.A. Economics and 4th year with BA Honours/BA Honours with research, and, Two-year M.A., and Ph.D. in Economics. The Department of Economics at CUTN is renowned for its excellent internship and placement opportunities. Many alumni have pursued further studies at prestigious institutions like the University of Essex and University College Dublin. The department boasts a highly active placement cell, which assists students in securing placements in prominent organizations such as Federal Bank and Dexion. Students also benefit from valuable internships with esteemed institutions, including the Reserve Bank of India (RBI), National Human Rights Commission (NHRC),



National Stock Exchange (NSE), Securities and Exchange Board of India (SEBI), Ministry of Statistics and Programme Implementation (MOSPI), Institute for Social and Economic Change (ISEC), and the Bhoomi Fellowship. These opportunities reflect the department's strong industry connections and its focus on practical, career-oriented training. Faculty engage in interdisciplinary research, funded by bodies such as UGC, NCW and ICSSR. The department is active in societal outreach, offering programs like a lending library for primary children and a financial literacy initiative. Equipped with modern facilities, it hosts seminars, workshops, and conferences, ensuring a rich academic environment focused on student development and academic excellence.

ABOUT THE WORKSHOP:

The Department of Economics, School of Social Sciences & Humanities, Central University of Tamil Nadu is organizing ICSSR, New Delhi Sponsored “Ten-Day Research Methodology Workshop entitled “Research Methodology and Data Analysis by using Open-Source Software” for Ph.D. Scholars and Post-Doctoral Fellows of Social Sciences from 15th to 24th October, 2024.

Research methodology course is vital for scholars, which enriches the research skills to conduct rigorous and meaningful study in their respective area of interest. The research methodology course offers a structured framework for understanding the principles, processes, and techniques involved in research design, data collection, analysis, and interpretation.

The basic requirements for high quality research in Social Sciences are the training in the science and art of doing research. In general, along with theoretical frameworks, tools and techniques of research will play significant role. At the end, by mastering research methodology course, Ph.D. scholars enhance their ability to produce high-quality research papers that contributes to the advancement of their disciplines. Ultimately, research methodology course empowers the scholars to navigate the complexities of the research process with confidence and precision, laying the groundwork for impactful academic and professional careers in their life. Therefore, there are several aspects in which a good researcher has to refine his/her skills by utilizing different open-source software. There are numerous advantages by using open-source software in their academic pursuits.



Firstly, the accessibility and cost-effectiveness of open-source tools eliminate financial barriers, ensuring equitable access to powerful resources regardless of institutional or individual budget constraints. Moreover, the transparent nature of open-source software promotes research integrity and reproducibility, as scholars can inspect, modify, and share code, fostering a culture of transparency and collaboration. The flexibility and customization options offered by open-source software enable scholars to tailor tools to their specific research needs, enhancing efficiency and efficacy. Additionally, participating in open-source communities provides scholars with opportunities for networking, skill development, and collective problem-solving, enriching their academic experience. Ultimately, by leveraging open-source software, scholars can enhance the quality, accessibility, and impact of their research, contributing to the advancement of knowledge across diverse disciplines.

CORE OBJECTIVE OF THE WORKSHOP

The core objective of the workshop is to equip participants with comprehensive knowledge and practical skills in conducting research and analyzing data using open-source software tools. Through a blend of theoretical instruction and hands-on exercises, the workshop aims to familiarize participants with the principles, techniques, and best practices of research methodology and data analysis. Participants will learn how to formulate research questions, design robust methodologies, collect and manage data, perform statistical analysis, and interpret results using open-source software packages such as Gretl, JASP, JAMOVI, R-Studio, R, MS Excel, and others. By the end of the workshop, participants will be proficient in leveraging open-source software to conduct rigorous and reproducible research, empowering them to advance their academic and professional pursuits effectively. In addition to introducing participants to the central thematic area, the workshop will also familiarize them with qualitative research methodologies. This course will be preferred for research scholars across the India.



The workshop aims to cover the following potential topics:

- Use of data in Social Science Research
- Overview of Qualitative and Quantitative Research
- Formulating Research Questions, Objectives, and Hypotheses
- Sampling Methods and Sampling Size
- Data Collection Techniques and Tools (Interviews, Focus Groups, Observation, etc.)
- Field Survey/Secondary sources-NSSO, NFHS, YLS, Indiastat, World Bank Indicator
- Basic Data Analysis (MCT and MD)
- Inferential statistics (Parametric and Non-Parametric tests; t, F, Z and Chi-Square and Others)
- Correlation and Regression Analysis.
- Major Problems in multiple regression (Heteroscedasticity, Specification of Errors, Multi-collinearity, and Autocorrelation)
- Multiple Regression with Dummy/Qualitative Variables.
- Discrete Response Models (Logit, Probit, Tobit models).
- Basic and Advance Time Series Analysis (Unit root, Causality, Cointegration, VAR, ARMA, and ARIMA models).
- Efficiency and Productivity models: DEA with Primary and Secondary Data
- Basic Panel Data Analysis (REM, FEM, LSDV, Within Group, First Difference Methods).
- E-library, Citations, References.
- Research Ethics and Plagiarism.

Note: Hands-on training will be conducted after the lectures on empirical topics.

Resource Persons are from NIT Trichy, MIDS, ISEC, MSE, UoH, BBAU, OU, Pondicherry University, Central University of Kerala, and CUTN.

WHO SHOULD APPLY?

The course is open to Research Scholars (PhD/Post Doctoral Fellow) in Social Science disciplines of the Universities and Colleges in India.

Intake: The maximum intake for the workshop will be **30** (10 from local-CUTN, 10 from Tamil Nadu state and remaining 10 from other states & UTs). The participants for the workshop will be selected as per the ICSSR, New Delhi guidelines.



APPLICATION PROCEDURE

Interested candidates can apply for the Workshop **on or before 4th October 2024 (4pm)**. Registration form is enclosed with this notification and it can also be downloaded from the university website (<http://www.cutn.ac.in/>). The candidates are required to upload duly filled registration form on Google Form. Registration form should be duly forwarded by the PhD/PDF supervisor (or) Head of the Department/Institution. The selected candidates will be informed through the registered email.

LINK TO APPLY

1. <https://forms.gle/mfByiM6ZUWwX9V49A> (or)

2. https://docs.google.com/forms/d/1Owzmlv3E1kErAgpx8sHsmUJmBRvE423jFP_Yv

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TRAVEL ALLOWANCE

Travel allowance by shortest distance (Train fare-sleeper class and bus fare) will be reimbursed to the out station participants as per ICSSR, New Delhi guidelines.

ACCOMMODATION

Twin sharing accommodation will be provided to the outstation participants (Tamil Nadu and Other States) at CUTN Guest House.

FOOD

Food (breakfast, lunch and dinner) will be provided during the workshop.

REGISTRATION FEE

There is **No registration fee** to attend the workshop. Priority will be given to first come first served basis.



IMPORTANT DATES

- Last date for the submission of application form: **4th October 2024 (4pm)**.
- Selected candidates will be intimated by **4th October 2024 (8pm)**.

Note:

1. Attendance for all the sessions is mandatory, otherwise the certificate will not be issued.
2. Candidates are advised to bring their Laptop for hands-on training.
3. No need to send the hard copy.

ADVISORY COMMITTEE

1. Prof. P. Velmurugan (Dean, School of Sciences & Humanities, CUTN)
2. Prof. N. Rajagopal (Head, Dept. of Economics, CUTN)
3. Prof. K. Damodaran (Dept. of Economics, CUTN)
4. Dr. Ch. Sankar Rao (Associate Prof. Dept. of Economics, CUTN)
5. Dr. P. Balamurugan (Assistant Prof. Dept. of Economics, CUTN)
6. Dr. B. Balaji (Assistant Prof. Dept. of Economics, CUTN)
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For any further details, contact

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- Ms. Ashna Elizabeth Koshy (Scholar) Call: 9656248470
Ms. Ranjini (Scholar)
Ms. Minu Rose (Scholar)
Mr. Baswanth Katta (Scholar)
Ms. Vishwaja (Student)
Mr. Hariharan (Student)
Mr. Vishwa (Student)
Ms. Reshma (Student)
Ms. Aparna (Student)
Ms. Rithisha (Student)





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FOR PH.D. & PDF SCHOLARS IN SOCIAL SCIENCES

ON

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ORGANISED BY

DEPARTMENT OF ECONOMICS

SCHOOL OF SOCIAL SCIENCES & HUMANITIES



Application Form

Name :
Gender : Male / Female / Others
Department :
Educational Qualifications :
College/University/Institution :
State :
Designation : PhD / PDF
Date of Birth :
Social Group : SC / ST / OBC / EWS / General
Address for Communication :
Mobile number :
Email :
Research Area/Topic :

Have you attended any RMC previously? : Yes / No

Name and contact number of person in case of emergency :

Supervisor/ Head (office seal)

Signature of the applicant

Note: The Candidates are required to upload duly filled registration form on Google Form.

Google Form Link: <https://forms.gle/mfByiM6ZUWwX9V49A>